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**Product Name:** Human ROR2 Protein Dimer, His Tag

**Product Code:** CSP-25288-01

**FOR RESEARCH USE ONLY (RUO)**

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**Protein Name:** ROR2

**Alternate Name(s):** BDB, BDB1, NTRKR2, receptor tyrosine kinase like orphan receptor 2

**Expression Host**  
HEK293T

**Amino Acid Range**  
E34 - G403

**Protein Construct**

ROR2 dimer protein contains the ROR2 extracellular domain (UniProt# Q01974) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

**SDS-Page Molecular Weight**

99 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE.

**Purity**

Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

**Shipping Conditions**

Product is shipped at ambient temperature.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4 with 10% trehalose as a protectant

**Stability & Storage**

On receipt, store at -20 C or lower for long term storage.

This product is stable at:

-20 to -70 C for 12 months from date of receipt in lyophilized state.

-70 C for 3 months after reconstitution under sterile conditions.

Avoid repeated freeze-thaw cycles

**Reconstitution of lyophilized product**

For best performance, we strongly recommend you reconstitute the lyophilized product with deionized water to a stock solution of 500 µg/mL.

Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing.

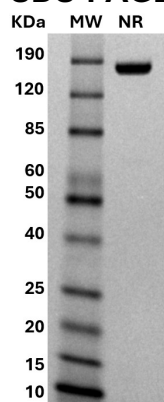
For 25µg product size:

Reconstitute with 50 µL sterile deionized water.

For 100µg product size:

Reconstitute with 200 µL sterile deionized water.

## SDS-PAGE

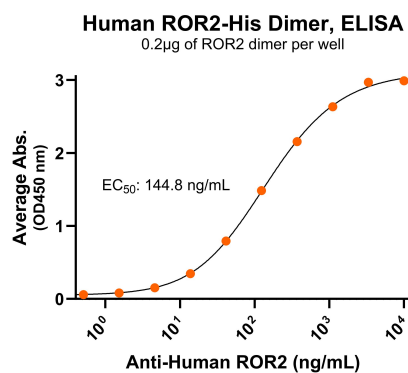


MW: Molecular Weight marker reduced condition

NR: ROR2 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE.

## Antibody Binding



Immobilized human ROR2 dimer protein, His Tag (Cat. No. CSP-25288-01) at 2 µg/mL (100 µL/well) can bind anti-human ROR2 monoclonal antibody, with half maximal effective concentration (EC<sub>50</sub>) range of 72.4-289.6 ng/mL (QC tested).

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## Background

Human tyrosine-protein kinase transmembrane receptor ROR2 (ROR2) is a Type I transmembrane protein and member of the receptor tyrosine kinase-like orphan receptor (ROR) family. ROR2 is also known as neurotrophic tyrosine kinase, receptor-related 2. ROR2 contains an extracellular domain with an immunoglobulin (Ig)-like domain, a Frizzled-like cysteine-rich domain, and a Kringle domain. ROR2 is involved in the early formation of chondrocytes. ROR2 is thought to be a receptor for Wnt-5a and its binding inhibits of Wnt-3a-mediated signaling. ROR2 regulates cell migration, polarity, differentiation, and tissue development. While expression is limited in many normal adult tissues, ROR2 can be elevated in cancers, including melanoma, breast, ovarian, renal, lung, and pancreatic cancers, where it may promote invasion and metastasis. Upregulation of ROR2 in several cancers, such as breast and liver cancer, has made it an attractive emerging target in cancer therapies including monoclonal antibodies, antibody-drug conjugates, bispecific antibodies, and CAR-T therapies.